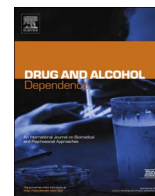




ELSEVIER

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcddep

Full length article

Hostility predicts alcohol consumption over a 21-year follow-up in the Gazel cohort

Guillaume Airagnes^{a,b,c,d,*}, Cédric Lemogne^{a,b,e}, Alice Gueguen^{c,d}, Nicolas Hoertel^{a,b,e}, Marcel Goldberg^{c,d}, Frédéric Limosin^{a,b,e}, Marie Zins^{c,d}^a AP-HP, Hôpitaux Universitaires Paris Ouest, Department of Psychiatry, Paris, France^b Université Paris Descartes, Sorbonne Paris Cité, Faculté de Médecine, France^c Inserm, UMS 011, Population-based Epidemiological Cohorts, Villejuif, France^d Inserm UMR 1168, VIMA, Villejuif, France^e Inserm, U894, Centre Psychiatrie et Neurosciences, Paris, France

ARTICLE INFO

Keywords:

Hostility

Hostile behaviors

Alcohol

Risk factor

Longitudinal analysis

Survey

ABSTRACT

Background: Hostility has been found to be positively associated with alcohol intake in cross-sectional studies. Our aim was to examine prospectively the long-lasting association of hostility with alcohol consumption.

Methods: We included 10,612 men and 3834 women from the French Gazel cohort with mean ages in 1993 of 48.6 (SD = 2.9) and 45.7 (SD = 4.2), respectively. Hostility (i.e., total, cognitive and behavioral) was assessed in 1993 with the Buss and Durkee Hostility Inventory. Alcohol consumption was self-reported annually from 1994 to 2014. Hostility scores were introduced successively in general linear mixed models with annual alcohol consumption in drinks per week as dependent variable. Multivariable analyses were adjusted for age, occupational status, marital status, retirement status and depression score. All the analyses were stratified by sex.

Results: Among men (women), 83.0% (76.2%) completed at least 75% of all annual assessment of alcohol consumption over a 21-year follow-up. In univariate analysis, alcohol consumption was associated with total and behavioral hostility in both sex (all $p < 0.001$). In multivariable analyses, these associations remained significant with a greater size effect for behavioral hostility. Estimated means of alcohol consumptions ranged from 10.50 [95%CI: 10.01–10.92] drinks per week to 13.32 [95%CI: 12.90–13.74] in men and from 4.09 [95%CI: 3.71–4.46] to 5.78 [95%CI: 5.39–6.17] in women, for the first and last quartiles respectively (p trends < 0.001 and all pairwise comparisons < 0.01). Similar effects were observed among participants with at-risk alcohol consumption at baseline.

Conclusions: In both men and women, behavioral hostility predicted alcohol consumption over a 21-year follow-up. Interventions aiming at modulating behavioral hostility may help reducing its long-lasting influence on alcohol consumption.

1. Introduction

Harmful use of alcohol is one of the world's leading risk factors for morbidity, disability, and mortality (Nutt et al., 2010; Rehm et al., 2003; World Health Organization, 2014). Even if alcohol consumption tends to decrease with aging (Eastwood, 2013; Hoertel et al., 2015b; Whiteman et al., 1997), its damages are often underestimated in the elderly, despite being possibly more severe in older adults than in younger ones (Caputo et al., 2012). Among strategies aiming at reducing these damages, identifying risk factors of excessive alcohol consumption has been a critical issue (Iparraguirre, 2015; Leamy et al.,

2016). Prior research has identified multiple contributing factors to alcohol consumption, most of them being non-modifiable. For example, sex (Erol and Karpyak, 2015), age (Whiteman et al., 1997), and exposure to adversity during childhood (Keyes et al., 2011; Pilowsky et al., 2009) have an enduring influence on alcohol consumption over the lifespan. Some life events, such as retirement, bereavement, or marriage or separation (Keyes et al., 2011; Perreira and Sloan, 2001; Tamers et al., 2014; Zins et al., 2011) may have a transient effect on alcohol consumption (Tamers et al., 2014; Zins et al., 2011). Among other factors, socioeconomic status may also influence alcohol consumption (Heckley et al., 2016). Although this knowledge can be useful

* Corresponding author at: Centre Ambulatoire d'Addictologie, Hôpital Européen Georges Pompidou, 20 rue Leblanc, 75908 Paris Cedex 15, France.
E-mail address: guillaume.airagnes@aphp.fr (G. Airagnes).

<http://dx.doi.org/10.1016/j.drugalcddep.2017.03.034>

Received 1 December 2016; Received in revised form 28 March 2017; Accepted 31 March 2017

Available online 30 May 2017

0376-8716/ © 2017 Elsevier B.V. All rights reserved.

to clinicians in order to increase prevention and early interventions in these contexts (Sandler et al., 2016), the identification of modifiable predictors of alcohol consumption over time that can be targeted by specific interventions constitutes a major public health challenge. Among the identified long-lasting and partially modifiable risk factors, personality traits have been put forward (Hakulinen et al., 2015; Sher et al., 2000). Nevertheless, although the link between personality and alcohol consumption is often observed by clinicians or in cross-sectional studies, there is still a lack of prospective data to objectify such a link, its strength, and its reliability in both men and women (Littlefield and Sher, 2010; Nolen-Hoeksema, 2004).

Among personality traits, hostility has been found to be positively associated with alcohol intake (Barthelme et al., 2010; Lee et al., 1988; Schonwetter and Janisse, 1991; Whiteman et al., 1997) and with negative consequences of alcohol use (Butryn and Zeichner, 1997) in cross-sectional studies. Hostility is a multidimensional construct that encompasses both cognitive hostility (i.e., hostile thoughts such as resentment and suspicion) and behavioral hostility (e.g., aggressiveness) (Airagnes et al., 2015; Lemogne et al., 2010). Among 3326 men current drinkers, Boyle et al. found an association between hostility and total monthly intake of alcohol (Boyle et al., 2008). There was also a 15.1% reduced impact of hostility on mortality when adjusted on drinks per drinking day, suggesting a partial mediation effect of alcohol consumption on the relationship between hostility and all-cause mortality (Klabbers et al., 2013). A previous study conducted among 1592 participants found that cognitive hostility was associated with higher levels of alcohol consumption in both men and women after adjusting for age and occupational status whereas this association did not reach statistical significance regarding behavioral hostility (Whiteman et al., 1997). Indeed cognitive hostility has been found to be associated with other types of risk behaviors such as suicide attempts (Lemogne et al., 2011). Nevertheless, earlier studies tend to show stronger associations with the behavioral component of hostility (Butryn and Zeichner, 1997). Moreover, hostile behaviors are associated with impulsivity (Garcia-Forero et al., 2009), which is known to be related to excessive alcohol consumption (Leamy et al., 2016; Verdejo-Garcia et al., 2008). It is noteworthy that interventions aiming at reducing hostility exist. Pharmacological strategies, such as antidepressants, could be useful (Kamarck et al., 2009). Non-pharmacological strategies aimed at diminishing hostility have been developed for patients with coronary heart disease, with evidence for their ability to improve outcomes (Gidron et al., 1999; Gulliksson et al., 2011; Whalley et al., 2011). However, cross-sectional studies may not be able to rule out reverse causality and longitudinal studies are needed to provide compelling evidence that hostility might be a risk factor of alcohol consumption, and thus a potentially useful target in both preventive and therapeutic interventions. To our knowledge, no study examined the potential long-lasting association of both behavioral and cognitive hostility on alcohol consumption.

Since 1989, the Gazel cohort has followed up employees of the French National Gas and Electricity Company who typically stayed in the same company during their entire career and continued to be followed after retirement (Goldberg et al., 2015). Hostility has been assessed in 1993 and participants reported annually their alcohol consumption over a 21-year follow-up. Our aim was therefore to take advantage of the opportunity offered by the Gazel cohort to examine the long-lasting association of hostility with alcohol consumption with a prospective design. We hypothesized that more hostile subjects will present higher levels of alcohol consumption over time. Due to the lack of reliability in previous findings regarding the differential impact

between behavioral and cognitive hostility components, we had no a priori hypothesis. However, determining whether one component is more strongly linked to alcohol consumption may help to further refine strategies targeting hostility and more generally interventions aiming at reducing alcohol consumption. Even if men-women convergence arises in younger birth cohorts (Slade et al., 2016), differences between men and women remain noteworthy regarding their pattern of alcohol use (i.e., abstinence, alcohol use and at-risk consumption) and their vulnerability for alcohol disorders, especially in middle-age and older subjects (Chan et al., 2007; Erol and Karpyak, 2015; French et al., 2014; Nuevo et al., 2015). Consequently, associations were examined in men and women, separately.

2. Material and methods

2.1. Participants

Details of the GAZEL cohort study are available elsewhere (Goldberg et al., 2015). In summary, the target population consisted of 44,922 employees of the French national gas and electricity company (Electricité de France-Gaz de France): 31,411 men aged 40–50 and 13,511 women aged 35–50. In January 1989, after an information campaign, these employees were invited to participate in the cohort on a voluntary basis. The invitation did not mention diseases or specific risk factors, but simply proposed participation in a long-term health study to help medical research. Data collection was anonymous and no data had been reported to the company. Refusal to participate in the survey had no impact on working life. Since beginning, the GAZEL cohort study has been managed by the same independent research team of the Institut National de la Santé et de la Recherche Médicale (INSERM), without any interference from the company in relation to the scientific work or publication of results (Goldberg et al., 2007). The study protocol was approved by the French authority for data confidentiality (Commission Nationale Informatique et Liberté) and by the Ethics Evaluation Committee of the Institut National de la Santé et de la Recherche Médicale, or INSERM (IRB0000388 and FWA00005831). In 1989, 20,625 employees (45.8%) (15,011 men and 5614 women) agreed to participate in the GAZEL cohort study. Since 1989, participants have been followed by means of an annual mailed questionnaire as well as through administrative databases. In 1993 a specific questionnaire, which was mailed to the 20,480 still-living cohort members, included measures of hostility with the Buss and Durkee Hostility Inventory (BDHI) and an assessment of depressive symptoms with the Center of Epidemiologic Studies Depression scale (CESD) (Buss and Durkee, 1957; Consoli et al., 1993; Fuhrer and Rouillon, 1989; Radloff, 1977). Alcohol consumption was self-reported in the annual questionnaire from 1993 to 2014. Among the 20,480 GAZEL volunteers still in the cohort in 1993, we identified as responders the 14,674 who completed the BDHI in 1993. Among the responders, 14,456 had reported at least once their alcohol consumption between 1994 and 2014. Among the responders who fulfilled this inclusion criterion, 10 had missing data for occupational status, thus 14,446 have finally been included (Supplemental Fig. 1).

2.2. Hostility assessment

Hostility was assessed thanks to the Buss and Durkee Hostility Inventory (BDHI) (Buss and Durkee, 1957; Lemogne et al., 2011). This scale is a measure of general aggression and hostility, composed of 75 items with ‘true-false’ answers. It has eight subscales, seven of which

Download English Version:

<https://daneshyari.com/en/article/5120031>

Download Persian Version:

<https://daneshyari.com/article/5120031>

[Daneshyari.com](https://daneshyari.com)